

Work Order ID 85429

\*85429\*

Page 1

June-07-12 2:55:25 PM

Item ID: D6101-005

Revision ID:

Item Name: Saddle Billet

Start Date: 07/06/2012 Start Qty: 60.00

Required Date: 14/06/2012 Req'd Qty: 60.00

Reference:

Approvals: Process Plan:

QC:

Date: Tooling:

Date: SPC (Y/N):

\*N900040100\*

Setup Start \*NS1\*

Stop \*NS2\*

Cust Item ID:

Customer:

Run Start \*NR1\*

Stop \*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID Tool # Plan Accept Reject Reject Insp.  
Code Qty Qty Number Stamp

Draw Nbr

Revision Nbr

D6101

Rev B

100

0.00

\*100\*

Purchasing

PURCHASING

Memo

0.00

Purchasing

Issue P/O:   
a) Description: Aluminum billet  
b) 5.00" x 8.250" x 2.50" thick  
c) Tolerance on all dimensions are +0.030/-0.000"  
d) Grain direction along 5.00" length  
e) Material: 7075-T7351 (QQ-A-250/12)  
f) Material certification required

110

Receive & Inspect for Damage & Mat'l Certs

0.00

\*110\*

Packaging

Memo

0.00

Packaging

Ensure material certification is attached

*split*

*0.25 10/10/12 100*

*30x6*

*12-6-12*

*30 (C/P/4/21*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Work Order ID 85429

\*85429\*

Page 2

June-07-12 2:55:25 PM

Item ID: D6101-005

Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

Stop

\*NS2\*

Item Name: Saddle Billet

Start Date: 07/06/2012 Start Qty: 60.00

\*60\*

Cust Item ID:

Required Date: 14/06/2012 Req'd Qty: 60.00

\*60\*

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start

\*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop

\*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

120

QC6- Inspect dimensions to drawing

0.00

\*120\*

QC

Memo

0.00

Quality Control

Ensure Material certification comply to Dwg D6101

OK 12/06/25  
12/06/25

30

0

130

Identify as per dwg & Stock Location

0.00

\*130\*

Packaging

Memo

0.00

Packaging

OK 12/06/25

30

0

140

QC21- Final Inspection - Work Order Release

0.00

\*140\*

QC

Memo

0.00

Quality Control

12/6/25  
MF  
12-06-25



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

June-07-12 2:55:29 PM

Page 1

Work Order ID: 85429

\*85429\*

Parent Item: D6101-005

\*D6101-005\*

Parent Item Name: Saddle Billet

Start Date: 07/06/2012

Required Date: 14/06/2012

Start Qty: 60.00

Required Qty: 60.00

Comments: IPP AY 01,05,04New Issue LC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-005P		Purchased		No		110	Each	0.0000	1	60			

\*D6101-005P\*

7075-17351 8.25X5.0X2.5

\*\*

30  
 12 6 12  
 12/21 (30)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

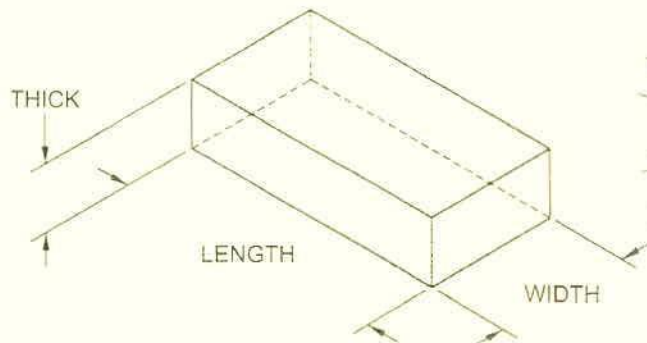
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



# SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

**B** ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

**RELEASED**  
09/07/15/W

B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D6101	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SADDLE BILLET, 7075	NTS
DATE	09.04.23	<small>COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**Castle Metals®**

A. M. Castle &amp; Co.

## BORDEREAU DE MARCHANDISES

Page 1 of 2

No de Formulaire d'Emballage / Shipment No:1360087

<b>Expédié de / Ship From:</b> A. M. Castle & Co. (Canada) Inc. MONTREAL 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2		<b>Vendu à / Sold To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		<b>Expédié à / Ship To:</b> WILL CALL-MONTREAL 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		<b>Livré à / Deliver To:</b> WILL CALL-MONTREAL 835 SELKIRK AVENUE POINTE CLAIRE, QC H9R 3S2 CA			
<b>Date d'expédition / Date Shipped</b> 20-JUN-2012		<b>F.O.B.</b> ORIGIN		<b>Modalités de transport / Freight Terms</b> Prepaid		<b>Transporteur / Carrier</b> LOCAL_FLEET		<b>No du Bon de connaissance / BOL No</b> 1360087-3	

<b>Détails d'expédition / Shipment Details</b>	<b>Destination finale / Final Destination Branch - MON</b>
--	--

N° de commande / Order No	N° de ligne Line No	N° d'article / Item No	Description	
2246702	1	752241.MO	2.5000.PL.7075.T7351.ALUMINUM.USI.48.5000.144.5000 CUT 2SIDED TO 8.25 IN ( + .0310/- .0000 IN (GRAIN TO RUN ALONG 5")) X 5 IN ( + .0310/- .0000 IN (GRAIN TO RUN ALONG 5")) - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12	
N° de bon de commande / Purchase Order No	Nbre de pièces / Part Number		Qté commandée / Ordered Qty	Qté Facturée / Invoice Qty
17167	YOUR ITEM NUMBER: D6101-005		30.00 PCS	30.0000 PCS
Détails / Details				

<b>Détails / Details</b>							
<b>N° de livraison / Delivery No :</b>	<b>Usine / Mill</b>	<b>No de coulée / Heat Number</b>	<b>Code méc / Mech Id</b>	<b>Pièces / PCS</b>	<b>Largeur (Pouce) / Width (IN)</b>	<b>Longueur (Pouce) / Length (IN)</b>	<b>Qté expédiée / Shipped Qty(LBS)</b>
117700909		405872A3		3			32
117700909		423456A3		15			159.98
117700909		429534A1		2			21.33
117700909		424168A3		10			106.66

Ces marchandises/technologies sont sujettes aux règlements de l'Export Administration et du département d'état des États-Unis. Si elles ont été/sont exportées, elles doivent se conformer à ces règlements. Toute modification du contrat de transport contraire aux lois des États-Unis est interdite.

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.

Nous certifions par la présente que le matériel couvert par cette certification est conforme aux spécifications susmentionnées et aux exigences applicables pour le matériel, y compris toute spécification faisant partie de la description. Les rapports d'

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law prohibited.

Date Printed: 20-JUN-2012 06:01:48 PM





**Castle Metals®**

A. M. Castle & Co.

**BORDEREAU DE MARCHANDISES**

Page 2 of 2

essai sont archivés pour fins de consultation. Toute requête concernant du matériel défectueux sera réglée à moins qu'elle ne soit faite par écrit à A. M. Castle & Co. dans les 60 jours suivant la livraison. Le matériel coupé sur mesure ou coupé par le client ne peut être retourné pour crédit.  
We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description.  
Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Ce matériel a été reçu et inspecté par

Reviewed by Authorized Castle Metals Representative:

Date:

Name:





SHIP TO:  
TRANSTAR METALS  
4611 EAST 31ST STREET  
WICHITA, KS 67210

**KAISER  
ALUMINUM**  
Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4125515

SOLD TO:  
TRANSTAR METALS INC.  
ATTN: ACCOUNTS PAYABLE DEPT.  
970 W. 190TH STREET  
SUITE 700  
TORRANCE, CA 90502

CUSTOMER PO NUMBER: 00144136		WORK PACKAGE:		CUSTOMER PART NUMBER: 152500X557L		SHIP RUN/LOAD ID: 101252/7	GOV'T CONTRACT NUMBER:
KAISER ORDER NO: 1064442	LINE ITEM: 1	SHIP DATE: 31-MAR-2008	ALLOY: 7075	CLAD: BARE	TEMPER: T7351	PRODUCT DESCRIPTION: MILL FINISH PLATE	
WEIGHT SHIPPED: 13660 LB	QUANTITY: 6 PCS EST.	B/L NUMBER: 2017102	GAUGE: 2.5000 IN	WIDTH: 55.000 IN	LENGTH: 161.000 IN		

### Certified Specifications

AMS 4078/RevG  
ASTM B 209/Rev07  
BSS 7055/RevA  
GSS16100/RevG  
PS 21211/RevK

AMS-QQ-A-250/12  
ASTM B 594/Rev06  
CSTI 006/RevC  
MIL-STD-2154

AMS-STD-2154  
BAC 5439/RevH  
DPS 4.713/RevAH  
MMS 159/RevN

Test Code: 4297

### Test Results

Lot: 405872A3 Cast 158 Drop 05 Ingot 4

(ASTM E8/B557)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	70.0 : 71.9 (483 : 496)	58.3 : 60.7 (402 : 419)	8.1 : 10.1

(ASTM E1004)

Conductivity %IACS :	40.7 Min	41.2 Max
(MS/M) :	23.6 Min	23.9 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.10	0.20	1.5	0.02	2.5	0.20	5.6	0.03	0.01	0.01	TOT 0.03

RECEIVED  
APR 06 2008  
TRANSTAR METALS  
By \_\_\_\_\_





# KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4125515

Lot: 427571A5 Cast 158 Drop 18 Ingot 4

(ASTM E8/B557)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	71.6 : 72.3 (494 : 499)	60.1 : 61.6 (414 : 425)	11.6 : 11.8

(ASTM E1004)

Conductivity %IACS :	41.4 Min	41.9 Max
(MS/M) :	24.0 Min	24.3 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.09	0.15	1.4	0.02	2.4	0.21	5.7	0.02	0.01	0.01	TOT 0.03

### ALLOY LIMITS

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075 MIN	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

### TEST NOTES

Metal represented by this test report was immersion ultrasonically tested from one side and meets the Class A and Class B requirements of all specifications referenced on this test report.

### CERTIFICATION

KAISER ALUMINUM FABRICATED PRODUCTS, LLC (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED IN THE U.S.A OR CANADA AND MANUFACTURED IN THE U.S.A. AND HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT-TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS ARE ON FILE, SUBJECT TO EXAMINATION. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN APPROVAL OF ALUMINUM FABRICATED PRODUCTS, LLC LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULANT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. ISO-9001:2000 CERTIFIED

BILL POYNOR, LABORATORIES SUPERVISOR





PC 1947 1008.00

<b>SHIP TO:</b> CASTLE METALS AEROSPACE 15 EXECUTIVE BLVD. ORANGE, CT 06477
<b>SOLD TO:</b> CAS AERO% A M CASTLE METALS ATTN:BOB OHR % ACCTS PAYABLES 3400 NORTH WOLF RD FRANKLIN PARK, IL 60131

**KAISER ALUMINUM**  
 Trentwood Works - Spokane, WA 99215  
 Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
 4130122

CUSTOMER PO NUMBER: 00144771		WORK PACKAGE:		CUSTOMER PART NUMBER: 152500X48.57L		SHIP RUN/LOAD ID: 101286/17		GOVT CONTRACT NUMBER:	
KAISER ORDER NO: 1066749	LINE ITEM: 1	SHIP DATE: 16-MAY-2008	ALLOY: 7075	CLAD: BARE	TEMPER: T7351	PRODUCT DESCRIPTION: MILL FINISH PLATE			
WEIGHT SHIPPED: 5450 LB	QUANTITY: 3 PCS EST.	B/L NUMBER: 2017856	GAUGE: 2.5000 IN		WIDTH: 48.500 IN	LENGTH: 144.500 IN			

### Certified Specifications

AMS 4078/RevG  
 ASTM B 209/Rev07  
 BSS 7055/RevA  
 DPS 4.713/RevAH  
 GSS16100/RevG

AMS-QQ-A-250/12  
 ASTM B 594/Rev06  
 CMMP 025/RevR  
 EAC MS1011/RevE  
 MMS 159/RevN

AMS-STD-2154  
 BAC 5439/RevH  
 CSTI 006/RevC  
 GAMPS 9101/RevB  
 PS 21211/RevK

01/06/25

Test Code: 4297

### Test Results

Lot: 423270A8 Cast 166 Drop 31 Ingot 1

(ASTM E8/B557)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	70.6 : 71.3 (487 : 492)	58.1 : 59.0 (401 : 407)	11.2 : 11.8

(ASTM E1004)

Conductivity %IACS :	41.0 Min	41.3 Max
(MS/M) :	23.8 Min	24.0 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.08	0.16	1.5	0.01	2.5	0.19	5.6	0.02	0.01	0.01	TOT 0.05





# KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4130122

Lot: 423456A3 Cast 166 Drop 29 Ingot 3

(ASTM E8/B557)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	71.3 : 71.8 (492 : 495)	58.9 : 59.0 (406 : 407)	11.8 : 12.1

(ASTM E1004)

Conductivity %IACS :	42.1 Min	42.1 Max
(MS/M) :	24.4 Min	24.4 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.06	0.12	1.5	0.01	2.5	0.20	5.8	0.03	0.01	0.00	TOT 0.04

### ALLOY LIMITS

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075 MIN	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

### Aluminum Remainder

### TEST NOTES

Metal represented by this test report was immersion  
ultrasonically tested from one side and meets the Class A  
and Class B requirements of all specifications referenced  
on this test report.

OK  
12/16/25

### CERTIFICATION

KAISER ALUMINUM FABRICATED PRODUCTS, LLC (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED IN THE U.S.A OR CANADA AND MANUFACTURED IN THE U.S.A. AND HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT-TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS ARE ON FILE, SUBJECT TO EXAMINATION. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF ALUMINUM FABRICATED PRODUCTS, LLC LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULANT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. ISO-9001:2000 CERTIFIED

BILL POYNOR, LABORATORIES SUPERVISOR

*Bill Poy*





## SHIP TO:

TRANSTAR METALS  
15 EXECUTIVE BLVD.  
ORANGE, CT 06477

## SOLD TO:

TRANSTAR METALS INC.  
ATTN: ACCOUNTS PAYABLE DEPT.  
970 W. 190TH STREET  
SUITE 700  
TORRANCE, CA 90502

**KAISER  
ALUMINUM**

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number

4120502

CUSTOMER PO NUMBER: 00143585		WORK PACKAGE:	CUSTOMER PART NUMBER: 152500X43.57L		SHIP RUN/LOAD ID: 101210/15	GOV'T CONTRACT NUMBER:
KAISER ORDER NO: 1062052	LINE ITEM: 1	SHIP DATE: 4-FEB-2008	ALLOY: 7075	CLAD: BARE	TEMPER: T7351	PRODUCT DESCRIPTION: MILL FINISH PLATE
WEIGHT SHIPPED: 5550 LB	QUANTITY: 3 PCS EST.	B/L NUMBER: 2016325	GAUGE: 2.5000 IN		WIDTH: 43.500 IN	LENGTH: 164.500 IN

## Certified Specifications

AMS 4078/RevG  
ASTM B 209/Rev06  
BSS 7055/RevA  
GSS16100/RevG  
PS 21211/RevK

AMS-QQ-A-250/12  
ASTM B 594/Rev06  
CSTI 006/RevC  
MIL-STD-2154

AMS-STD-2154  
BAC 5439/RevH  
DPS 4.713/RevAH  
MMS 159/RevN

Test Code: 4297

## Test Results

Lot: 429534A1 Cast 146 Drop 96 Ingot 2

(ASTM E8/B557)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	70.1 : 71.2 (483 : 491)	58.8 : 59.9 (405 : 413)	10.9 : 12.0

(ASTM E1004)

Conductivity %IACS :	41.8 Min	41.9 Max
(MS/M) :	24.2 Min	24.3 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.08	0.19	1.4	0.01	2.5	0.20	5.7	0.02	0.01	0.01	TOT 0.03

## ALLOY LIMITS

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075 MIN	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

RECEIVED FEB 11 2008

RECEIVED

Page 1 of 2





# KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4120502

### TEST NOTES

Metal represented by this test report was immersion  
ultrasonically tested from one side and meets the Class A  
and Class B requirements of all specifications referenced  
on this test report.

### CERTIFICATION

KAISER ALUMINUM FABRICATED PRODUCTS, LLC (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED IN THE U.S.A OR CANADA AND  
MANUFACTURED IN THE U.S.A. AND HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS  
INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT-TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD  
GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS ARE ON FILE, SUBJECT TO EXAMINATION. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL OF ALUMINUM FABRICATED PRODUCTS, LLC LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULANT STATEMENTS  
OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. ISO-9001:2000 CERTIFIED

BILL POYNOR, LABORATORIES SUPERVISOR

*Bill Poy*

PTC 101





SHIP TO: CASTLE METALS AEROSPACE 15 EXECUTIVE BLVD. ORANGE, CT 06477
SOLD TO: CASTLE METALS AEROSPACE ATTN: ACCOUNTS PAYABLE DEPT. 970 W. 190TH STREET SUITE 700 TORRANCE, CA 90502

# KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4126435

CUSTOMER PO NUMBER: 00144215	WORK PACKAGE:	CUSTOMER PART NUMBER: 152500X48.57L145.75	SHIP RUN/LOAD ID: 101258/15	GOV'T CONTRACT NUMBER:		
KAISER ORDER NO: 1064974	LINE ITEM: 1	SHIP DATE: 8-APR-2008	ALLOY: 7075	CLAD: BARE	TEMPER: T7351	PRODUCT DESCRIPTION: MILL FINISH PLATE
WEIGHT SHIPPED: 7230 LB	QUANTITY: 4 PCS EST.	B/L NUMBER: 2017258	GUAGE: 2.5000 IN	WIDTH: 48.500 IN	LENGTH: 145.750 IN	

### Certified Specifications

AMS 4078/RevG	AMS-QQ-A-250/12	AMS-STD-2154
ASTM B 209/Rev07	ASTM B 594/Rev06	BAC 5439/RevH
BSS 7055/RevA	CSTI 006/RevC	DPS 4.713/RevAH
GSS16100/RevG	MIL-STD-2154	MMS 159/RevN
PS 21211/RevK		

*Handwritten:* 12/10/05

Test Code: 4297

### Test Results

Lot: 424168A3 Cast 159 Drop 86 Ingot 2

(ASTM E8/B557)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	72.6 : 73.6 (501 : 507)	62.1 : 63.0 (428 : 434)	10.4 : 10.7

(ASTM E1004)

Conductivity %IACS :	40.3 Min	40.7 Max
(MS/M) :	23.4 Min	23.6 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.09	0.21	1.4	0.02	2.5	0.19	5.5	0.03	0.01	0.01	TOT 0.03

### ALLOY LIMITS

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075 MIN	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

**PROFORMA**  
APR 15 2008









Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4126435

### TEST NOTES

Metal represented by this test report was immersion  
ultrasonically tested from one side and meets the Class A  
and Class B requirements of all specifications referenced  
on this test report.

### CERTIFICATION

KAISER ALUMINUM FABRICATED PRODUCTS, LLC (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED IN THE U.S.A OR CANADA AND MANUFACTURED IN THE U.S.A. AND HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT-TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS ARE ON FILE, SUBJECT TO EXAMINATION. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF ALUMINUM FABRICATED PRODUCTS, LLC LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULANT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. ISO-9001:2000 CERTIFIED

**BILL POYNOR, LABORATORIES SUPERVISOR**